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(Crustacea, Isopoda) from Phuket Island,
Thailand

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**A New Species of the Genus *Pistorius* (Crustacea, Isopoda)
from Phuket Island, Thailand***

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タイから発見されたピストリウス属コツブムシの1新種

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タイのブケット島から発見されたピストリウス属コツブムシ1種を新種 *Pistorius sasayamai* として記載した。本種はクイーンズランドから知られている *Pistorius bidens* HARRISON と類似しているが(1)腹部縫合線が不明瞭なこと、(2)胸肢が太いこと、(3)生殖突起の先端に小歯があること(4)腹尾節に顕著な瘤があること、(5)顎脚内葉の先端の形態の相違、(6)第5腹肢外肢に2つの突起があることによって区別される。基準標本系列はブケット海洋生物センター、国立科学博物館並びに富山市科学文化センターで保管される

During the survey entitled "Marine zoogeography of Southeast Asia, with special reference to the faunal relationship between Southeast Asia and southern Japan", Dr. Yuichi Sasayama of the Toyama University happened to collect 3 specimens of queer-looking sphaeromatid crustacean. These specimens were sent to me for identification. On close examination, they proved to represent a new species of the genus *Pistorius*. The genus was established by HARRISON and HOLDICH (1982) based on a single species, *Pistorius bidens* from Heron Island, Queensland, and this seems to be the second species in the world.

Before going further, I wish to express my sincere gratitude to Dr. Y. Sasayama for his kindness of giving me a good chance to study such interesting specimens, and to Dr. Masatsune. Takeda for his kindness to read the manuscript. This research was supported by the Grand-in-Aid for Over Seas Scientific Research No.62043082 from the Ministry of Education, Science and Culture, Japanese Government.

***Pistorius sasayamai* sp. nov.**

Fig. 1-3

Material examined : Ko Mai Thon, Phuket Island, Thailand, from dead coral ; 2 ♂♂ (1 ♂ holotype, 5.0mm in body length and 1 ♂ paratype, 4.6mm in body length) and 1 ♀ (allotype, 4.7mm in body length), coll. Yuichi Sasayama, 6 November, 1986. Type series is deposited as follows : Holotype (PMBC-No.6020) at Phuket Marine Biological Center, Phuket, allotype

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(NSMT-Cr 9392) at the National Science Museum, Tokyo, and a paratype (TOYA-Cr 7603) at the Toyama Science Museum. These specimens have been preserved in 70% ethanol.

Description : Adult male. Dorsal surface of cephalon and pereon smooth. Color reddish yellow in formalin. Eyes rather large, situated laterally ; each eye composed of about 40

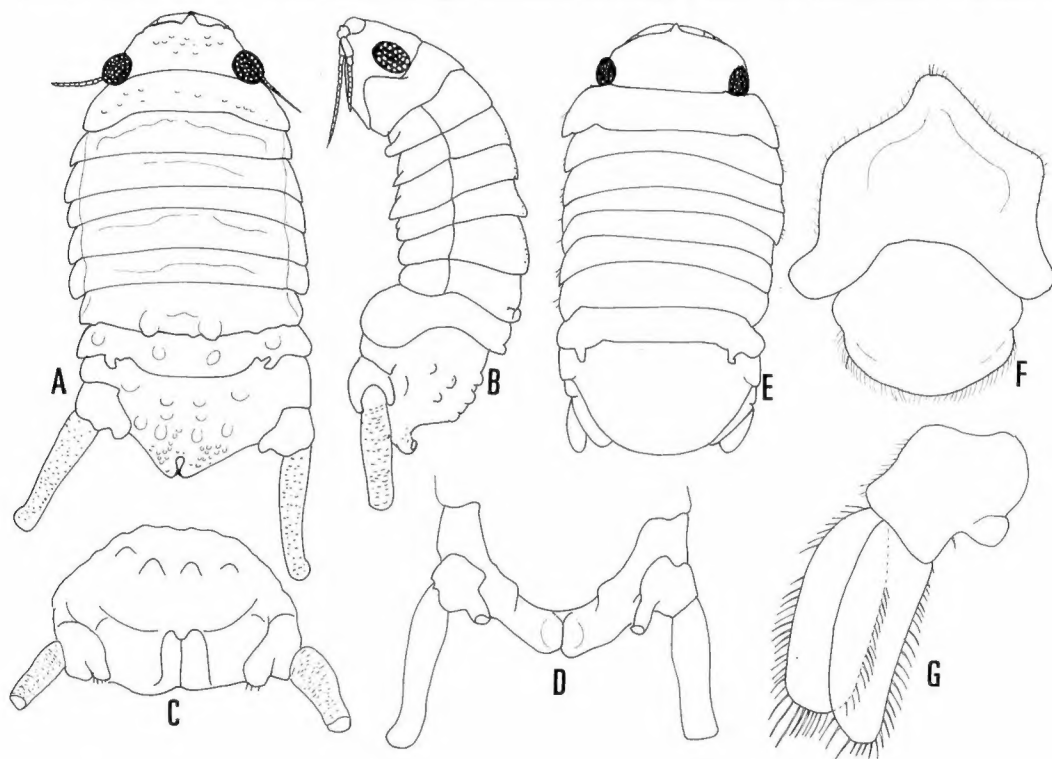


Fig. 1 *Pistorius sasayamai* sp. nov., A~D, holotype male, in dorsal (A), lateral (B), posterior (C) and ventral (D) view ; E, allotype, female in dorsal view ; F, epistome of holotype ; G, Uropod of allotype.

ommatidia. Pereonites 1~6 subequal in length, pereonite 7 with sinuate posterior margin. Pleon with indistinct borders ; posterior margin forms a tube directed dorsally together with apical foramen. Pleotelson triangular, with 10 tubercles.

Epistome (Fig. 1F) pentagonal and rather stout. Upper lip round.

Antennule (Fig. 2A). Peduncular segment 1 stout and as long as 2 and 3 combined, but not extended anteriorly as a plate ; peduncular segment 2 subquadrate ; peduncular segment 3 slender ; 9-segmented flagellum extending to the level of pereonite 1.

Antenna (Fig. 2B) slender, with 13-segmented flagellum extending to the level of pereonite 2.

Mandible (Fig. 3A). *Pars incisiva* 4-headed ; *lacinia mobilis* 2-headed ; 5 penicils behind *lacinia mobilis* ; *processus molaris* wide. Palp long ; 2nd segment with 4 long setae on inner

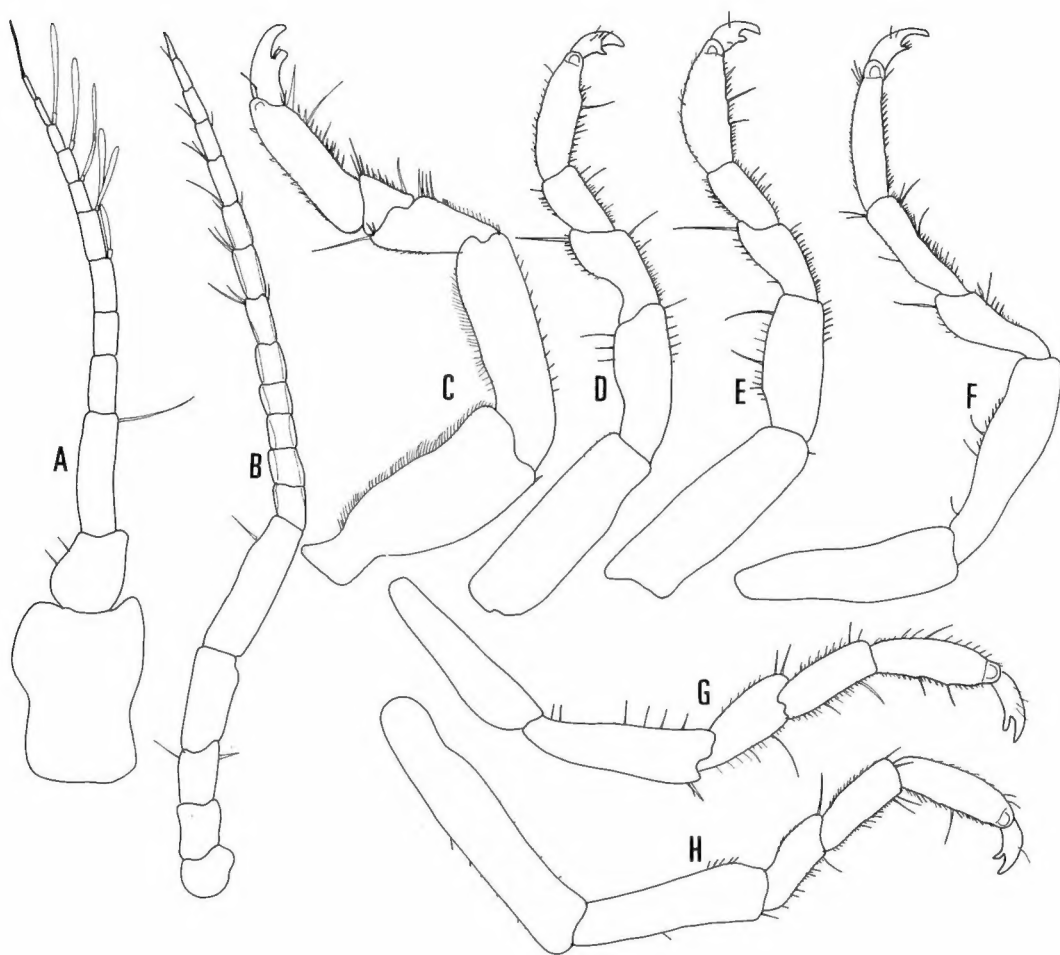


Fig. 2 *Pistorius sasayamai* sp. nov., holotype male. A, antennule ; B, antenna ; C~G, pereopods 1~5 ; H, pereopod 7.

margin ; 3rd segment with 8~9 setae on distal half of distal margin. Maxillula (Fig. 3B). Outer lobe with 10 (4+6) teeth at the tip ; inner lobe with 4 hairy bristles at the tip. Maxilla (Fig. 3C). Inner lobe with 4 setae, and 3 of them are saw-like ; both rami of outer lobe with 3 long setae respectively. Maxilliped (Fig. 3D). Endite rectangular and rather slender with a long coupling hook on inner margin and 7~8 stout spines on distal margin. Palp 5-segmented ; 1st segment subsquare ; 2nd segment large and spread towards the distal end, with a dozen setae on inner distal corner ; 3rd segment stout, but rather short, with a deep incision on distal margin and with 8 setae on inner distal corner ; 4th segment slender, with 7 setae on inner distal margin ; terminal segment very narrow, with 7 setae at the tip.

Pereopod 1 (Fig. 2C). Basis rectangular ; ischium almost as long as basis, with a series of short setae on inner margin ; merus triangular, with a series of short setae on inner margin

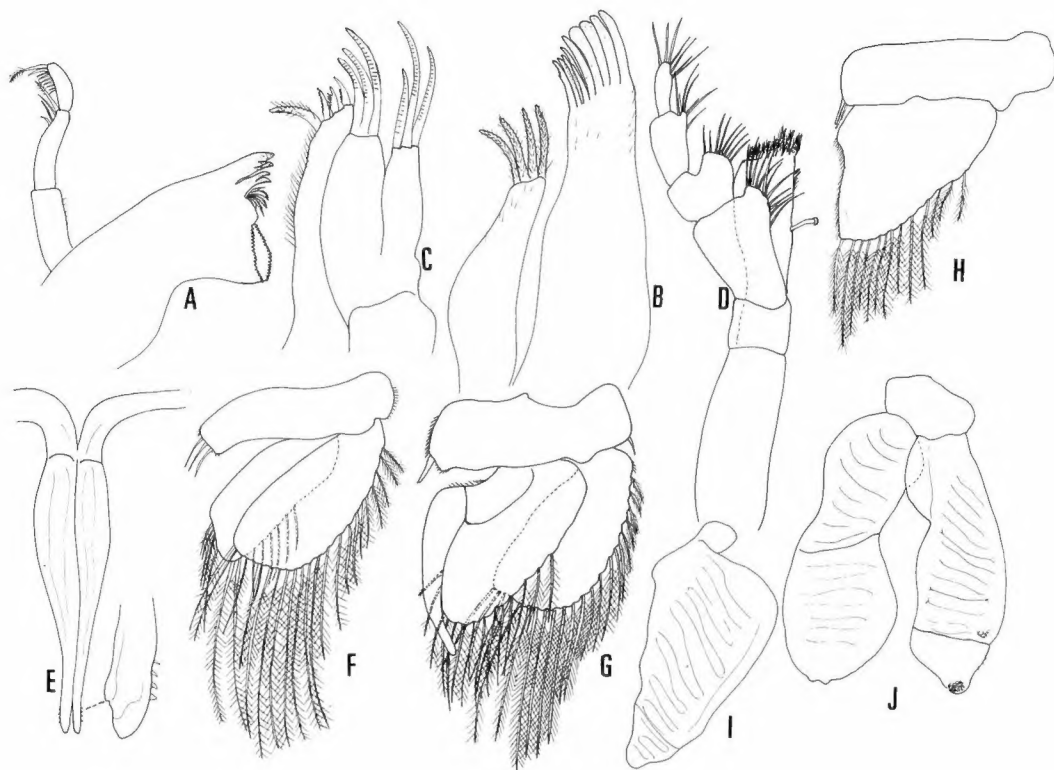


Fig. 3 *Pistorius sasayamai* sp. nov., holotype male. A, left mandible ; B, maxillula ; C, maxilla ; D, maxilliped ; E, penes ; F, pleopod 1 ; G, pleopod 2 ; H, endopod of pleopod 3 ; I, endopod of pleopod 4 ; J, pleopod 5.

and a protruded posterior distal margin ; carpus triangular and relatively short ; propodus stout, with a longer and many shorter setae on inner margin ; dactylus bifid. Pereopods 2, 3 (Fig. 2D-E). Basis rectangular ; ischium slightly shorter than basis, with a series of short setae on inner margin ; merus rectangular, with a series of short setae on inner margin and a protruded posterior distal margin ; carpus relatively short ; propodus stout with a long and many short setae on inner margin ; dactylus bifid. Pereopods 4~6 (Fig. 2F-G). Basis longer than those of preceding ones ; ischium as long as basis ; sum of merus and carpus as long as ischium ; propodus relatively long ; dactylus bifid. Pereopod 7 (Fig. 2H) longer than pereopods 1~6 ; basis elongated ; ischium also elongated, about 0.75 time as long as basis ; merus and carpus about half length of ischium ; propodus rectangular.

Penes (Fig. 3E) long, tapering towards the tip and bearing 4 denticles on outer distal margin.

Pleopod 1 (Fig. 3F). Basis stout and transversely long, with 3 internal coupling hooks ; both rami lanceolate-oblong and subequal in length. Pleopod 2 (Fig. 3G). Basis stout and transversely long, with a coupling hook ; endopod with rather stout stylus which extends for

one-third of its own length beyond the apex of endopod ; its base broad and gradually tapering to a bluntly pointed tip ; both rami ovate-lanceolate. Pleopod 3 (Fig. 3H). Endopod triangular, without an articulation ; exopod narrow lanceolate. Pleopod 4 (Fig. 3I). Exopod with a complete subterminal external articulation. Pleopod 5 (Fig. 3J). Exopod with a complete subterminal articulation and with an apical boss and an inner boss ; exopod as long as endopod.

Uropod (Fig. 1G). Basis almost square ; endopod strongly reduced ; exopod very long, more than 5 times as long as wide.

Female. Smaller than holotype male. Dorsal surface of cephalon and pereon almost smooth. Pleotelson semicircular. Both uropodal rami subequal in length.

Remarks : The present new species is very closely allied to the type species, *Pistorius bidens* HARRISON et HOLDICH, reported from Heron Island, Queensland, especially in the shape of uropod. This species is, however, separated from it by the following features : (1) Indistinct suture lines of pleon, (2) robust pereopods, (3) presence of denticles on apical part of penes, (4) stronger tubercles of pleotelson, (5) different shape of margin of maxilliped endite and, (6) presence of only two bosses on exopod of pleopod 5.

Literature

HARRISON, K. and D. M., HOLDICH, 1982. New eubranhiate sphaeromatid isopods from Queensland waters. Mem. Qd. Mus. 20 : 421-446.